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286 tensive labor, although the weavers usually do some housework also.

CLOTHING AND DRESS HABITS

294 *Clothing manufacture.*—Many persons make their own clothes, but a number of persons
463 make clothes for sale or on order. Even men may make clothes for sale if the family owns a sewing machine. For example, one storekeeper makes men's cotton trousers (*calzones*) and men's shirts in his spare time, selling them in the store. His wife also sews but less frequently. Many storekeepers have one or more sewing machines—the largest number observed was three—which are rented to women who come to the store to sew. One ambitious family (whose sons were sent to Morelia to school) made much of the family income from the labor of mother and daughters. Most of the sewing is durable but not skilled. No one in the town
[511] knows how to fit a garment, and as standards
[177] approach those of the Mestizos, more and more people buy ready-made garments from outside
[439] in stores, markets, or in Mestizo towns.

Most of the "tailors" are specialists, making only one type of garment. One woman makes only men's cotton trousers. She makes six pairs a day, double-stitched. Garments for weddings are single-stitched. The cloth is provided and cut by the customer. This woman works only intermittently on order. Trousers require about 2½ m. of cloth. Men's shirts require about the same amount of material but cost more for sewing. One woman makes only aprons, while another makes only children's garments.

291 *Men's dress.*—Influence of the Mestizo world is strongly evident in men's dress. Yet, aside
177 from the priest, no resident of the town dresses completely *catrin* (i.e., in city style) in Cherán, and only rarely do individuals going to Uruapan or some other town wear city dress. Many men, it is true, commonly wear one or more garments of "town" style. Coats, sweaters, and jackets are owned by many. Tailored woolen trousers, on the other hand, are rare, while almost none own complete suits. Ordinarily, the cotton trousers of the Mestizo countryman rather than woolen trousers replace the white *calzones* of the Indian.

301 Miscellaneous cheap products of the markets may be worn, but the proper type every woman desires is a large hollow crescentic ornament with wires from each end passing through the perforation in the ear. These are of gold or silver, gold being preferred. A gold pair costs [435] about $35.00.

WOODWORKING TECHNIQUES

335 Carpentry, including house building, is the only wood manufacturing process in Cherán 322 except that of a single man who turns out chocolate beaters and that of a family who make broom handles. Aside from house building, carpenters mainly make doors for houses and kitchens, gates in fences, and trap doors. While several carpenters can do other kinds of woodwork, they rarely make furniture, as Cherán carpenters do not feel they can compete with those of nearby Paracho.

511 The differences in the economic well-being of 465 towns situated only a few miles apart are sharply underscored by this situation. Paracho is a "poor" village with inadequate lands. A considerable percentage of the population gain their livelihood as hired laborers, traders, carpenters, and weavers. Furniture makers in Paracho receive ordinarily 50 centavos for a chair, which takes perhaps a day to make. Carpenters from Cherán, most of whom are also landowners, feel this is a quite inadequate return. Data from Cherán indicate carpenters receive $1.50 or more a day for their labor. It may be that the traditional specialization of labor may have some influence upon the Cherán carpenter's unwillingness to make furniture, but differences in economic standards undoubtedly play a part.

335 Carpenters have a shop in their yard, usually consisting of a shed with one or two sides closed. Under this is a work bench of heavy planks. The tools are a saw, mallet, chisels, adz, hammer, and plane. Usually the metal parts only are purchased, and handles and plane boxes are made by the carpenter.

As the majority of Cherán houses are of wood, another important activity of carpenters is house building. Only the simplest house construction would be undertaken without the aid of a carpenter, and even the roofing of a stone or adobe structure likewise calls for a

[text continues on p. 436]

272 Carbonated drinks with artificial coloring
265 and flavoring are sold, particularly at two stands in the plaza where the buses stop. Lemon, orange, cherry, pineapple, and banana are the common flavors. The drinks are brought from Paracho or Uruapan and sell for 5 centavos a quarter-liter bottle. Consumption is small; the stores may have six or eight bottles for 6 months.

A refreshment of water, fruit flavorings, and sugar is also sold in the plaza. Ice is usually available only on Sundays. Only men of the town buy these refreshments when they are in funds and want to try something exotic. Most of the trade is with passersby in the buses, fortunately for the health of Cherán. Water ice is sold from door to door by one or two vendors. It is made locally whenever the dealer can secure ice from Uruapan. Home-made ices are sometimes made when the water in the troughs or streams freezes in the winter.

QUANTITIES AND COST OF FOODS

262 A mere list of foods and recipes has little meaning unless quantities are ascertained. Potentially the Cherán inhabitant has an adequate diet, but most of the population probably suffer from some dietary deficiency, either because of poverty or because of improper distribution and preparation of foods. Vitamin deficiencies probably are subacute to acute in many individuals. Qualitative and quantitative data of great accuracy were difficult to secure, but enough were obtained to be of some value as guides to dietary problems. Below are given some diets collected:

262 One of the poorest families in town, con-
511 sisting of 3 adults and 2 children, eats 2½
556 liters of maize daily, which costs 10 centavos. Once a week the family spends 5 to 10 centavos in chiles and every 3 or 4 days 3 to 5 centavos in cheese. On rather rare occasions, if the family is relatively prosperous for the moment, one-third to one-half liter of beans is purchased at a cost of 5 to 8 centavos. Eggs, meat, and some other items are almost never eaten. It is probable that some greens are eaten from time to time which were not noted by the reporter. Total food cost could average as little as 81½ centavos per week.

A poor family, but not in such desperate

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262 straits as the one mentioned above, would prob-
511 ably spend, in addition, 1 or 2 centavos daily
556 for sugar, consumed in cinnamon tea, or 3 to 6 ounces of brown sugar for use in *atole blanco*. Atole would occasionally be made of milk, 3 to 5 centavos worth being bought. Such a family
[158] would drink milk only in case of illness, when a sick person might get a pint or a little more each day.

A "middle class" family, consisting of 8 persons (2 adults, 6 children aged 4 to 16), eats about 3½ liters of maize daily, about 3½ pounds of meat (a peso's worth) a week, and 10 centavos worth of cheese daily. In addition, about 25 centavos a day would be spent for other foods. (The data on the three diets given above were all collected by Sra. Silvia Rendón.)

What appeared to be two reliable quantitative records, covering 2-week periods, were obtained, the first for a wealthy family and the second for an average family. They are as follows:

Diet records of two families for 2-week period

1. Wealthy family, Don Hilaro Xhemba (10 persons in household):

Maize	111 liters
Meat	13 pounds
Cheese	2 pounds
Fruit	[1]$ 2.54
Milk	1.54
Chiles (about ½ dozen)	.03
Bread (15 pieces, whole wheat, about 4½ inches diameter, 1¼ inches thick)	.75
Beans (brown or red; little less than 3 liters)	.41
Fish (probably about ½ pound dried fish)	.21
Total expenditure	$12.50

2. Average family, Melquiades Romero (2 adults and 5 children):

Maize	75 liters
Meat	12 pounds
Fruit	[2]$0.96

[1] This amount seems high. It would be the cost of 50 to 75 oranges, small to medium size, but undoubtedly it was not all spent for oranges; in fact, it was much more probably spent for bananas, pears, and perhaps apples or peaches.

[2] Perhaps spent for 20 to 30 small to medium oranges, but probably mostly for bananas, peaches, pears, and apples.

In both cases recorded above, vegetables undoubtedly came out of the family garden and are not listed. Probably, from the distribution of purchases, this would mean cabbage daily, perhaps half a leaf per person, boiled with the

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262 511 556 meat. At this time of year there may have been a few meals with immature squash or wild herbs from the woods, stewed with perhaps a little milk or cheese and lard.

146 262 556 511 Evelyn Payne Hatcher kindly consented to attempt an analysis of the diet of Cherán. The results are full of guesswork, but they are at least suggestive. The results show that if yellow maize was used almost exclusively, the diet of a wealthy family would contain no outright deficiencies and in many respects provide more than the usual recommended minimum amounts of various vitamins and proteins and calories. A very poor family, on the other hand, would show a striking deficiency in vitamin B_1 and an inadequate caloric intake. Both diets would give a marked deficiency of vitamin A if white corn were used instead of yellow corn. Despite the inadequacy of the data, there seems little reason to doubt that in some cases, particularly among poor families, deficiencies in the diet are sufficiently large to have a pronounced effect upon behavior and cultural participation (Beals and Hatcher, 1943).

COMPARATIVE NOTES

262 556 511 Some interesting comparisons are afforded by data from other towns. The most complete information was secured from Chilchota in La Cañada.

Chilchota is a Mestizoized Indian town, i. e., the bulk of the population is of Indian descent but a number of Mestizos have moved in, the native language is scarcely spoken any longer, and the people regard themselves as non-Indian. Customs are closely similar to those in the nearby Indian towns, however. Following are some menus collected by Silvia Rendón (for Cherán menus, see Beals and Hatcher, 1943):

Chilchota menus

Luncheons (taken about 10 or 11 a. m.; no breakfast in this case):

Average household:

Broiled beef
Boiled beans
Black atole
Chile sauce
Tortillas

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262 Chile sauce
Tortillas
511 Coffee (black)
556 Broiled beef
Chile sauce
Tortillas

Poor household:
Chile sauce
Tortillas

Broiled beef
Chile sauce
Tortillas

Very poor household:
Greens of wheat plants (boiled)
Tortillas

Wealthy household:
Pork cooked with chile
Fried beans
Tortillas

Fried pork
Boiled beans
Milk
Tortillas

Pork cooked in chile sauce (mole?)
Fried beans
Tortillas
Black coffee

Dinners (2 p. m. or later):
Average household:
Meat broth with cabbage (cooked)
Meat (beef) from which broth was made
Boiled beans
Tortillas

Meat broth with cabbage
Boiled beans
Rice, cooked in water

Pork broth (with rice and bitter *tunas* or prickly pears)
Rice boiled in water
Beans
Tortillas

Fried rice with tomatoes
Pork in chile sauce
Tortillas

Poor household:
Broth
Meat from the broth
Beans boiled with chile and silantro
Tortillas

Wealthy household:
Meat broth
Meat (different from that from which broth was made) cooked with chile
Beans
Tortillas

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262 Suppers (about 7 o'clock in the evening):
511 Average household:
556

Boiled beans
Chile sauce
Tortillas

Boiled beans
Chile sauce
Tortillas

Boiled beans
Whole-wheat bread
Black coffee

Boiled beans
Tortillas
Milk

Very poor household:

Beans
Posole (hominy, probably with a little boiled meat)
Tortillas

Wealthy household:

Boiled beans
Tortillas
Chile sauce
Whole-wheat bread
Black coffee

Boiled beans
Tortillas
Chile sauce
Broiled meat
Milk

Fairly common suppers are tamales (with or without meat) and atole or coffee or a piece of bread (a whole-wheat bread slightly seasoned) and a cup of tea made from the herb nurite or a type of orange leaf.

In all cases quantities are probably small, except of tortillas. Rarely would more than one piece of bread be eaten, perhaps 2 to 3 ounces at most; perhaps half a cup to a cup of beans; meat, if broiled or boiled, two pieces about 1½ inches in greatest dimension—if in sauce, perhaps a couple of tablespoonfuls with the sauce.[19]

With substitution of different foods, these would represent Cherán menus on the whole, although there would not be so much meat with breakfast-luncheon, but rather atole, while the meat broth and meat would more commonly be served together.

At the Indian town of Sopoco in La Cañada, the following midday meals were observed:

[19] See Appendix 1 for more data on Chilchota.

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262 Boiled broadbeans
511 Tortillas
556 Eggs cooked on the *comal*
Fried herbs with chile sauce
Tortillas

Boiled broadbeans
Boiled beans
Tortillas

Further comparative notes (collected by Silvia Rendón)—Possibly because Capacuaro is 262 184 a smaller village with extensive woods close by, more wild animals are used for food. These include doves, *huilotas*, bird eggs (kuašanda), rabbits, flying squirrels, squirrels (kuiníkes), deer, gophers (khumás), wood rats (heyáki), peccary, jackrabbits (apácis), foxes, armadillos, bee larvae, larvae of a ground dwelling bee (*jicoteras*), worms from unidentified plants (talpanal), fresh water crawfish (čapus), wild crab apple worms (kauaš), and *tlacuache* (takuače). It is to be suspected that in Cherán, where persons closely associated with the woods are not often in the town, our list of wild animal products eaten is much shorter than it should be, although it probably represents the common diet.

[264] Two meals a day are eaten, at 11 o'clock in the morning and in the evening at varying times. In one house the morning meal was tortillas and beans; in another, coffee and bread; in a third, coffee and tortillas sweetened with brown sugar; in a fourth, atole nuríte and tortillas; in a fifth, chile sauce, boiled greens, and tortillas. The second meal most commonly consists of squash or chayotes, meat broth with cabbage, meat and chile, and tortillas.

Special dishes not already reported include the following:

Tamalitos de čápata, small tamales of black amaranth seeds (čapata; the plant is puári), made to sell in Uruapan at three for 5 centavos. The seeds are ground and cooked in maize leaves like tamales.

Ičuskata, *gordos* filled with beans, for sale in Uruapan at 5 centavos each.

Yurúričúskatas, *gordos* made of maize dough mixed with brown sugar. In cooking, a number of pebbles are put in the *comal* and the *gordos* are placed on top of these so they cook more slowly.

Toasted tortillas (harípukata), eaten frequently at meals.

256 243 434 438 wheat, and the milling charge. A *carga* produces about 14 *arrobas*, or about 250 pounds of flour, of which the mill takes 2½ *arrobas*, or 62½ pounds. The farmer receives 187½ pounds of flour. Either of these procedures involves the labor of transporting wheat to the mill and, in case the farmer has no burros, the rent of pack animals or trucking charges. Mills are at Jacona (regarded as the best), Purépero, Tanátaro, and Carapan.

Yet another way of disposing of wheat is to grind it at home or in a *nixtamal* mill and bake bread for sale in the market towns and at fiestas. Only relatively small quantities are used in this way.

245 438 434 One agricultural activity for which few data were obtained is fruit growing. No information was secured on yields of trees or on labor. The main labor cost is harvesting, usually done by the family at a time when there is little other agricultural activity. Fruit may be carried to markets, or it may be sold to traders.

434 24 511 Another view of farming activity may be gained by examining the income of individual farmers. These data are probably somewhat unreliable, for, as previously indicated, there is a tendency to minimize wealth and income. Table 2 summarizes the available information.

Case 1 is a school teacher with a small family who rents his land. Probably his share in good years supplies most of his family requirements of maize. Case 2 is a storekeeper who also rents his land. In years when his land lies fallow, he must have to buy a little

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241 434 511 maize. Case 3 owns a store run by his children, but he regards himself as a farmer by preference. Even without his store, he would be well off by Cherán standards, although not a "rich man." In 1940 he produced nearly enough maize for his family and sold over $300 worth of wheat. In 1941 he probably was able to sell not less than 35 *fanegas* of maize above his family's food needs (less if he raised pigs or fattened beef for butchering). Case 4 is a widow. Her land is cultivated by a nephew, but under what circumstances is not known. If the nephew lives with her, the amount of maize is a little inadequate; on the other hand, if she lives alone, the quantity is more than enough for one person.

ANIMAL HUSBANDRY

231 434 It is virtually impossible to secure useful data on labor costs or profits in relation to animals. Under agriculture I have mentioned some of the facts about oxen. No data were collected on chicken raising; probably no one in Cherán knows how much grain he feeds chickens or how many eggs a year he gets. [435] Prices vary from 2 to 6 centavos per egg. The situation about pigs is little better.

Virtually everyone keeps pigs; no one has any idea of the total amount of grain fed except during the fattening period. Shoats have little value and are frequently given away. Data on labor are lacking, yet the labor cost cannot be negligible when the animal is being fattened and its pen is cleaned frequently. A

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TABLE 2.—*Data on farm income*

[Data for 1940, claimed; for 1941, estimated.]

Case No.	Land cultivated			Yield			Value of crops[1]		Total income for year		Combined income for 1940-41
	Number of parcels	Number of hectares	Value	Crop	1940	1941	1940	1941	1940	1941	
1[2]	2	2	$140	Maize	20 fanegas		$100-140		$100-140		$150-240
	1			do		10-15 fanegas		50-100		50-100	
2[2]	1	4	350	Maize	35 fanegas		175-200		175-200		175-200
	1	Town lot		Pears	10-100's	8-100's					
3	1	8	1,250	Wheat	17½ cargas		638-671		449-561		733-1,231
	1	1		Maize	7½ fanegas		40				
	1	1½		do	7½ fanegas		40				
	1	Town lot[3]		Peaches	25-100's	25-100's	10	10		283-670	
	1	3½		Maize		55-110 fanegas		275-660			
4	1	¼	120	Wheat	1 carga		25		80		135
	1	¼		Maize	9 fanegas		55			55	
	1	¼		do		9 fanegas		55			

[1] Values of fodder or wheat straw not included.
[2] Land rented; crop values represent owner's share (one-half).
[3] Cost of threshing deducted.
[4] Value not included in $1,250.

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494 left in a single load. As yet, though, the most important influence of the highway is the frequent bus service. The regular buses, connecting with buses for Guadalajara, and going directly to or from Morelia, and Mexico City, pass through to and from Uruapan about once an hour during the day. In addition, smaller buses from Uruapan to Purépero and Nahuatzen pass by several times a day. As a consequence, individual vendors often go to market by bus. Women take foodstuffs or herbs to Uruapan for the Sunday market regularly. Others may visit the market at Paracho merely as a recreation. Not a few in the village have made a trip or two to Mexico City.

556 Modern transport has even reached into Cherán itself. Three of the more well-to-do
494 men in the town have purchased a 1½-ton truck, which carries freight to Uruapan or Morelia at 1½ centavos a kilo. On Sundays it also operates as a "wildcat" (i.e., unlicensed) bus to Paracho. The fare is 25 centavos plus a charge for bulky bundles; for example, 20 centavos for three bundles of palm leaves.
[661] Although trucks are not supposed to carry passengers, a satisfactory working arrangement has been made with the traffic police.

STOREKEEPERS

443 Cherán is unique among large Tarascan towns in that virtually all storekeepers are natives. A few of the storekeepers are large farmers whose families run a store on the side, but most of them made their start as storekeepers although they may now also be farmers. As one of the successful storekeepers explained, less capital is required to start a store than is needed to buy adequate farm lands. According to this same informant, if a man has fifty pesos, he can get a hundred pesos worth of goods, and if he has a place to operate, he is established in business. Moreover, the work is not as hard as farming. In addition, as people in Cherán have the same idea of living standards, business volume in most stores is small, so small that it is said not to have attracted the Mestizos.
[511] It is asserted that only those accustomed to Tarascan living standards and ways can succeed in making a living as a storekeeper in Cherán.

The more able storekeepers not only sell

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[p.836]

ably a majority of the attendants are Tarascans. Rendón, who collected the data, observes that there is a fairly clear sex division in market activities. Prepared foods are always sold by women. Sugarcane, medicinal herbs, pulque, and *ocote* (pitch pine) are almost always sold by men. Such things as lime, sweetmeats, and pottery are usually sold by women, although men may sell them. Vegetables are usually sold by women, while fruits may be sold by either sex. In general, selling is done mostly by the women. Buying, on the other hand, seems equally divided between men and women. Merchandise sold on two different market days (dates not given, but probably in February 1940) is shown in table 7. The organization of the market is shown in figure 11.

TABLE 7.—*Goods sold at two markets at Chilchota*

Goods sold	Number of vendors in—	
	Market A	Market B
Sugarcane	15	12
Cooked agave (mescal)	8	0
Green tomatoes	2	5
Ripe tomatoes	6	0
Green chile	0	3
Dry chile	7	7
Cabbage	3	4
Cooked chayote	8	6
Cooked chayote root	10	8
Cooked squash	3	8
Cooked sweetpotato	3	0
Dried meat	1	0
Greens	0	2
Limes and oranges	3	2
Cherimoyas and other fruit	6	8
Peanuts	6	0
Lemon-leaf tea and nurite	1	1
Sweets	2	3
Pulque	0	6
Sweet tamales	12	10
Flour tamales	6	4
Regular tamales (kurúndas)	12	6
Medicinal herbs	1	2
Soaproot	1	1
Salt and lime	4	4
Pitch pine	2	0
Pottery	8	11
Total	130	123

CONSUMPTION

The most important type of consumption in Cherán is that occurring in the family. Obviously, the consumption of raw material and semifinished goods in manufactures is significant, but the essential data regarding this have already been presented in the previous discussions. Likewise, there are many aspects of consumption related to various cultural activities dealt with in later discussions. Special types of consumption occur in connection with the life crises, especially mar-

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511 riage, and to a lesser extent with birth and death. A very significant consumption of goods occurs in connection with religious activities, particularly in relation to the *mayordomías* Less important, perhaps, is consumption in connection with governmental activities. All of these, nevertheless, are subordinate in importance to consumption by family groups.

The major product consumed by the family is maize. In the vast majority of cases most of, if not all, the maize consumed is produced by the family. The same is true of a number of supplementary items in the diet such as fruit, cabbage, and other vegetables. On the other hand, beans, meat, cheese, and fish, important constituents of the diet, are usually purchased. Maize consumption is about one-half liter a day per person (averaging the consumption of all ages). Much greater quan-

511 tities may be consumed in connection with any festal occasion. Consumption of any other items will depend upon the amount of money available.

The major food consumption of the family has already been analyzed (Beals and Hatcher, 1943). In monetary terms it has been shown that great differences exist. Food expenditures vary from 11.6 to 17.8 centavos a day per person. In general, a very poor family with its own maize supply will spend 5 to 10 centavos in chiles a week, 3 to 5 centavos in cheese every 3 or 4 days, 1 or 2 centavos in sugar or brown sugar daily, and perhaps occasionally 5 to 8 centavos in beans. Unless the family is quite poverty-stricken, about 2 centavos a day is spent in having the maize ground in a *nixtamal* mill. Among families in slightly better circumstances, about a peso a week is

[text continues on top of p. 85a]

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511 spent on meat. Families not regarded as poor might spend as little as 60 centavos a day on food for a family of six (two adults and four children). Checked in several ways, although obviously the quantitative data are inadequate, it appears that most prosperous (but not wealthy) families with sufficient land to produce all their own maize may spend less than 1 peso a day. It is estimated by some that this amount also includes the cost of all clothing and some maintenance of buildings but would not include special expenses, such as replacing animals, giving fiestas, holding funerals, etc. Frankly, this seems hard to believe.[25]

An approach to consumption (in terms of peso values), based on such quantitative data as it was possible to collect, indicates a much higher consumption rate for the normal Cherán family. Taking, for convenience, a family of five, the following seems a reasonably close approximation of consumption and expenditure:

	Per day	*Per year*
Home-produced goods consumed:		
Maize, 2½ liters daily	$0.15	$54.75
Vegetables and fruit	.10	36.50
Firewood	.08	29.20
Total value		$120.45
Goods requiring cash expenditure:		
Expenditures at store and butcher shop	$1.00	$365.00
Man's clothing (a rough estimate of minimum requirements for work clothing plus some "dress" clothing)		27.00
Woman's clothing (one typical woman's outfit of Tarascan type clothing, plus a couple of cotton dresses a year)		60.00
Clothing for 3 small children		15.00
Total cash expenditure a year		467.00
Total value of goods consumed a year		$587.45

In addition to the above ordinary expendi-

[25] In Mestizo Chilchota, Repdón collected the following data: For a family of two adults and four children, 6 to 22 years, food expenditures were said to be 75 centavos to 1 peso daily, mostly for meat, the remainder for beans, lard, pitch pine, chiles, tomatoes, salt, lime, and other things. The maize consumed is grown. Another family of four adults and one child of 5 years spent about a peso a day. Another family of four adults and three children, 8 to 14 years, spent a peso to a peso and a half daily. In all cases the major expenditure was said to be for meat, with beans coming second. All grew their own maize. Unlike those in Cherán, all these families consumed coffee once and sometimes twice a day.

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511 tures, there will also be less frequent ones. In the life time of the average family, a house and kitchen will have to be bought or built. By usual Cherán standards, this will mean a capital expenditure of $170 to $450. Animals must be replaced from time to time, an item difficult to estimate, but probably involving capital expenditures of around $200 every 10 years as a minimum.

Periodic expenditures will also include a blanket every few years at about $20, reroofing of house and kitchen every 10 years or so at a cost of about $40, an occasional *mayordomía*, and the expenses of weddings, births, and deaths. Finally, there are taxes on property and contributions to the church. All these are impossible to estimate accurately with the available data. A *mayordomía*, for example, may vary from an outlay of perhaps $15 or $20 for [796] Mass, candles, and ornaments for the altar in the house to a cash expenditure of about $500 for the *mayordomía* of Nochebuena plus extensive use of maize and butchering of animals etc. belonging to the *mayordomo*. Weddings likewise may vary enormously according to economic resources, but may run up as high as $500 in cash outlay. In addition, there are the innumerable occasions when one must participate in weddings, roofing or house-moving fiestas, etc., each of which involves more or less expensive gifts aside from possible contributions of labor.

The above factors suggest that a Cherán family of five in about average circumstances makes a total outlay on consumption goods of not less than $500 a year if such capital expenditures as housing are allowed for. This does not include the value of home-produced foods. Many families unquestionably have a much smaller cash outlay than the amount suggested, but, equally certainly, some families spend more. Furthermore, these estimates assume that the family has inherited all the land it needs and is not making any expenditures for land purchases.

The preceding considerations suggest that insufficient attention has been paid to the quantity of exports and the movement of money in Cherán economy. Such data are difficult but not impossible to secure, although a considerable margin of error must be expected.

1:Beals E-5 (1940-1941)1946 NU34 Tarasco NU34

511 The motivations of consumption appear several. Primary is the need of food, shelter, 181 and clothing. For very poor families, this is virtually the only type of consumption. Food requirements are intimately linked with productive efforts. The basic necessities by Cherán standards are mostly produced by the family unit, and the processes are apart from the system of commerce and exchange. Any family unit regarded as meeting Cherán standards of living will also have other consumption motivations. Participation in the social and religious life of the community is perhaps the second most important consumption motive. Crisis periods, especially marriage, and the possession of a *mayordomía* are occasions for consumption of goods, often on a very large scale. Such consumption, however, comes not entirely in the category of "conspicuous expenditure" but rather as the fulfilling of a social duty. It is true that the wedding ceremony is designed to emphasize public display of the consumption involved; nevertheless, failure to give as elaborate a wedding as the means of a family justified would suggest to the inhabitants of Cherán either that the family was stingy or that the family disapproved of the match. Yet another interpretation might be that they did not regard the girl as socially acceptable, either because of the poverty of her family or because of her reputation. In one case observed, the bride's mother, a poor widow with few relatives, prepared to finance part of the wedding herself when she found the wealthy family of the groom was planning a modest ceremony. In this case [626] the threatened action of the bride's mother precipitated so much gossip and unfavorable comment that the groom's family at the last minute greatly increased its expenditures for the wedding (and the bride's mother, incidentally, did not have to carry out her threats).

556 In general, wealthy people do not display their wealth ostentatiously except through 511 undertaking the more expensive *mayordomías* and giving the most elaborate weddings. Often the houses of wealthy persons are less pretentious than are those of the middle class. A man of the latter class with a large family may well operate a much more elaborate establishment than the wealthy man with a small family. The wealthy are apt to be envied in

1:Beals E-5 (1940-1941)1946 NU34 Tarasco NU34
[p.86b]

Cherán, it is clear. Memories of the more violent revolutionary days are close enough that people conceal their wealth rather than display it. That this was not always the case is evidenced by the considerable number of ruined stone buildings, homes of the wealthy before the revolution. Today wealthy men live modestly. Their table differs primarily in quantity rather than in quality from that of the poor. Wealthy men dress like others, unless they are going to Uruapan or Zamora. Their wives wear better quality clothes, as a rule, than do other women, and on special occasions they display more and better jewelry. There are few servants in Cherán, and their place is taken by dependent relatives or orphans who are members of the family.

The major methods of conspicuous expenditure acceptable in Cherán are quite stereotyped. Perhaps most common is to be sponsor of a moro dancer or to be responsible for some phase of a fiesta, posts assigned by the *municipio* rather than sought after by the individual. The ownership of cattle which can be used for cattle riding in the town fiesta is another socially approved method of ostentation. Ownership of a horse is also permissible, but it is considered that only a few wealthy men really need horses—men with distant lands or herds that must be visited frequently. The man who buys a horse without really needing it is considered to be "showing off." In the main, the methods of ostentatious consumption not only are communally recognized and approved but are restricted to specific social occasions. In ordinary life there is little to distinguish one Cherán man or family from another, if one except the very poor.

VALUE AND PRICE

The values of the major commodities and services in Cherán are expressed in monetary terms. Perhaps the only significant exceptions are the services rendered by relatives and *compadres* in connection with house moving and various fiestas, services rendered the community, and the goods which are exchanged at betrothals and weddings. In the latter case, wholly fictitious values are placed on the goods exchanged, but even here the equation is ultimately made to money values. With these

1:Beals E-5 (1940-1941)1946 NU34 Tarasco NU34
[p.1946] Sierra Tarascans

291 based on actual inventories of a few middle-class homes and persons.

343 In addition to a house and kitchen, which constitute the Cherán minimum of decent housing, there are also many other structures to be built, mostly by the man himself. If he has burros or cattle, he will have a shed used as a stable when the animals are kept at the house. A pigpen is usually built of small poles, often with a shake roof over all or part of it and an opening to the street. Additional storage space for fodder or straw is often provided, usually a pole construction roofed with shakes. The lot needs to be fenced with poles and the street side preferably should have a wall of stone or stone topped with adobe bricks. A substantial gate with a sheltering roof is regarded as a virtual necessity.

593 Most of the family life goes on in the kitchen.
342 Cooking, eating, and sleeping all take place in the one structure. In fine weather, people may sit outside or sit on the porch of the house. Guests may sleep in the house, and when a son marries he and his bride will occupy the house for a year or more. Much of the business of living takes place in the lot, in the fields and mountains, and in the streets of the town.

593 When children come, the acquisitive activities of the family become even more important.
556 Now, not only is there a desire to secure the minimum of housing, food, and clothing, as
● 581 well as the property to make these things possible, but there is the urge to obtain resources with which to start the children out in life. Efforts are made to obtain additional fields and to buy lots so that when the children marry they can immediately have their own home and their own means of subsistence in what Cherán residents regard as the most satisfactory way, that is, by possessing sufficient farm lands.

593 As solid citizens the family members will also have additional responsibilities. At least
556 one out of four families will hold a *mayordomía*
554 at some time. The father will also serve as *comisionado* for various fiestas, perform some community labor, and serve on the night watch. He may also take some position in the church organization or occupy some office in the municipal government. If he can read and write he almost certainly will at some time be chosen for an office.

3:Beals, Carrasco & McCorkle E-5 (1940-1942) 1944
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SUPPLEMENTARY STRUCTURES

435 351 The main supplementary structures to be considered are fences, gates, and sheds. The only fences involving expenditure are those of masonry-adobe. Costs are the same per meter as for a house wall.

The gate will vary in cost. Often it may consist of only a few planks, which may be second-hand material secured without cost, or even merely a pole or two laid horizontally across the opening. A well-made *zagudn* gate bought from a carpenter will cost about 17 pesos and up, depending on size. The balance of the gate, including the roof over it, will usually be constructed by the house owner. Ordinarily, the few shakes needed will be left over from house building or may be secured for a few cents.

435 343 Sheds are usually built by the householder. A sizable shed roof might require a bundle of shakes costing 5 pesos. No nails would be used, the shakes being held down by rough-hewn strips of pine and stones.

COMPARISON OF COSTS

435 342 It is clear from the foregoing data that a masonry-adobe structure is as cheap or slightly cheaper than a wooden house, or "*troje*." It also has more storage space. On the other hand, it requires somewhat more care in upkeep and also more expense to make it look "right" to the Tarascan. The interior, for example, should have a coat of plaster of either adobe or lime and sand. Preferably, so should the exterior. Both should also be whitewashed or kalsomined. None of these costs are included in the estimates.

435 342 An interesting comparison is made in table 5 of the costs of the following four categories of Tarascan houses:

511 (*a*) What the Tarascan would conceive to be the minimal shelter, which would be far below the Tarascan standard of decency.

(*b*) Housing considered a poor standard but not impossible.

(*c*) A respectable standard for a small family.

(*d*) A high standard for a small family.

Only people of some wealth normally use masonry-adobe structures; consequently, only in this category have I shown costs for this type of housing, without including any "frills" for decoration or finishing.

3:Beals, Carrasco & McCorkle E-5 (1940-1942) 1944
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TABLE 5.—*Costs of housing in Cherán*

Category of housing	Description	Cost in pesos
a. Minimal	One poorly built "*terîle*" kitchen	25–80
b. Low standard, small family.	One small trója kostna, or one "*terîle*" kitchen and one small "*troje*."	175–200
c. Adequate standard, small family.	One medium trója kostna or "*terîle*" kitchen and one medium "*troje*."	375–500
d. Wealthy	One large trója kostna and two good "*trojes*."	550–800
	One trója kostna and two-room masonry-adobe house.	750

These figures show a very wide range, yet they still do not represent the true situation. Actually, of course, if a poverty-stricken person can persuade

[continued on p. 28 b]

RELATION OF HOUSES TO SOCIAL AND ECONOMIC STATUS

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Only in a general way is there correlation between house size and type to social and economic status. Very poor people would be in categories *a* or *b*. But relatively poor and relatively wealthy people will often be in class *c*. Where the family occupies a class *d* category, this will usually be owing to one, or a combination of the following things:

[592] 1. Size of household. Often two brothers, or a father and one or more married sons occupy the residence.

[continued bottom page 28 b]

435 a relative or friend to permit him to use a bit of
342 land—as many do—the cost of minimal shelter
511 could be as low as $11. By begging scraps, even this figure could be reduced. Such a housing situation would, however, be regarded as "frightful" by all Tarascans.

At the other end of the scale, there are numerous Cherán residents who have much more costly establishments than those represented under *d*. Relatively few are in the condition of *b;* the great majority of Cherán residents would fall in category *c* and a fair proportion in category *d*. The discussion of house use will illustrate this point.

RELATION OF HOUSES TO
SOCIAL AND ECONOMIC STATUS

342 2. A special occupation, such as storekeeping, may be
556 followed.

3. There may be definite social pretensions. Of these three causes, the last seems least operative. Wealth is a necessary prerequisite to anything more elaborate than class *d* housing but wealth is often concealed. Numerous families in class *d* are far from wealthy by Cherán standards.

These judgments are somewhat subjective, but case material could be cited to support them.

10:Beals & Hatcher E-4,5 (1941-1942) 1943
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101 The village of Cherán is primarily an agricultural village, at an elevation of approximately 8500 feet, in the mountains between Pátz-
511 cuaro and Uruapan, Michoacán, México. The climate consequently is temperate. In comparison with other villages of the region, Cherán is relatively prosperous and it is probable that the diet is better than in the majority of Tarascan towns. In terms of Tarascan standards, probably only between ten and twenty percent of the population is to be classed as "poor". On the other hand, there are no markedly wealthy families.

Three methods of collecting data were used. One, followed pri-
126 marily by Sra. Rendón, was the collection of a complete list of foods eaten and the compilation of a large number of menus of actual meals for as many families as was possible. In addition, the entire staff collected recipes for specific dishes. These, although of ethnographic interest, were of little use in the present study. Finally, the cooperation of a number of literate families was enlisted to get a complete record
124 of the food consumed over a fifteen day period.

The final method naturally was the most valuable. Unfortunately, the number of cooperating families was small. Moreover, the accuracy of the returns probably varied considerably. In many cases, the amount of money spent was given rather than the quantity purchased but, as very detailed studies of prices had been made it was possible to equate prices and quantities with some accuracy. One considerable source of error is the amount of vegetables such as cabbage, greens, and so on gathered from gardens or from woods. In addition, a certain amount of fruit or "snacks", purchased in the market or from street vendors had to be estimated from knowledge of general habits. The most specific records covered only a period in the late Fall and do not take into account some slight seasonal variations in the diet. Despite all these deficiencies, the various types of data seem to point to the same general conclusions, and we believe that these are reasonably valid
146 if the specific results are viewed with proper reserve.
262 An average weekly diet for a Cherán adult is presented in table I.[2]

114 in 1941-1942. The study formed a part of the Program of Anthropological Investigations among the Tarascan Indians, a joint enterprise of the University of California, the Escuela Nacional de Antropología, the Instituto Nacional de Antropología e Historia, and the Departamento de Asuntos Indígenas. Analysis of the data was made by the junior author, Evelyn Hatcher.

128 [2] In compiling the tables, the following sources were used: Chatfield and Adams, **Proximate Composition of American Food Materials**, United
113 States Department of Agriculture Circular N° 549, 1940: Chatfield and McLaughlin, **Proximate Composition of Fresh Fruits**, United States Depart-

10:Beals & Hatcher E-4,5 (1941-1942) 1943
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146 This table is an abstraction derived from all the different sources of information. It shows that the diet contains somewhat more than 262 minumum requirements of vitamins A and B1, slightly less than mi- 556 nimum requirements of vitamin C, and appreciable deficiency of vita- 511 min B_2, ample proteins, and nearly a 25 percent deficiency in calories.

Such an average diet obviously is not very meaningful in giving the extremes. Fortunately, the two best fifteen day schedules secured were respectively from one of the wealthiest families in town and from one of the poorest. Table 2 shows the analysis of the diet for one week of an adult belonging to the wealthiest family.

The results of table 2 show a number of interesting and important points. While the vitamin A intake is above the minimum requirements (although still far below optimum recommendations), virtually all the vitamin A comes from yellow maize. If white maize were to be consumed, the vitamin A intake would be dangerously reduced. When it [184] is remembered that in some sections of Michoacán, white maize is preferred, it is evident that if the diets are at all similar to those at Cherán, serious vitamin A deficiency must occur. This is almost certainly the case, as diets of most Tarascan and many rural Mexicans in the area are little different from those in Cherán. The wealthy diet shows an approach to the higher recommended quantities of vitamin B_1, but vitamin C does not quite reach the minimum, and vitamin B_2 is still only about half the minimum needed. The protein intake is quite high and the calory intake is slightly above the recommended minimum for moderately active males. Table 2 is arranged to emphasize the importance of maize in the diets of even the wealthy.

Turning to the diet for a very poor family, analyzed in table 3, the vitamin A intake is slightly above minimum requirements, although again the figures depend upon the use of yellow maize. Vitamin B_1 intake is well below minimum requirements, and is only about half of the recommended quantity. Vitamin C, on the other hand, shows up much better than in the wealthy diet, due to the greater use of chile. If this is typical of poor family diets, then the vitamin C intake of poorer people is almost twice the minimum requirements, although

128 ment of Agriculture Circular N° 50, Revised 1931; Stiebeling and Phipard, **Diets of Families of Employed Wage Earners and Clerical Workers in Cities,** 113 United States Department of Agriculture Circular N° 507, 1939; Daniel and Munsell, **Vitamin of Foods,** United States Department of Agriculture Miscellaneous Publication 275, 1937; Borsook, **Vitamins,** Viking Press, 1940; Booher and Hartzler, **The Vitamin B Content of Foods,** United States Department of Agriculture Technical Bulletin N° 707, 1939: and Fixen and Roscoe, **Table of Vitamin Contents,** Nutrition Abstracts and Reviews, 9, 795 (1940).

10:Beals & Hatcher E-4,5 (1941-1942) 1943
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TABLE II

	onzs.	*I. U. A*	*I. U. B_1*	*mg. C*	*mg. B_2*	*onzs. proteins*	*onzs. fats*	*Calories*
meat	10.4	52	117	5.7	.16	1.9	1.35	875
cheese	1.6	900	7	—	.25	.37	.52	179
bread	1	70	30	0	—	.1	.02	100
bananas	5.5	230	28	7	.07	.66	.11	154
milk	16	700	75	10	.60	.28	.32	310
lard	.5	—	—	—	—	—	H.5	127
beans	5	40	71	0	—	1.1	.08	495
oranges	12	117	100	107	.32	.11	.02	175
fish	1	200	20	0	.1	.25	—	200
greens	6	1,000	30	40	—	.24	—	70
chiles	.7	616	—	38	—	—	—	
Totals (without maize)		3,835 [1]	433	207.7	1.50	5.01	2.42	2,685
maize (yellow)	192	23,600	2,840	—	2.07	19.2	8.26	20,280
Total		27,585	3,318	207.7	3.57	24.21	10.68	22,965
Minimum requirements.		21,000	2,331	210	6.3	11.2	—	—
Recommended		42,000	3,500	525	12.6	15	—	21,000

Diet of one adult for one week, wealthy family.

[1] This would be the quantity of vitamin A with white maize.

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10:Beals & Hatcher E-4,5 (1941-1942) 1943
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TABLE III

	onzs.	*I. U. A*	*I. U. B_1*	*mg. C*	*mg. B_2*	*onzs. proteins*	*onzs. fats*	*Calories*
maize	121	14,890	1,750	—	1.2	12.1	5.2	12,780
chiles	7.5	6,600	—	400	—	—	—	75
beans	1.5	10	33	—	—	.33	.02	250
cheese	2	1,120	9	—	.32	.36	.64	223
greens	3	500	15	20	—	.12	—	35
Totals		23,120	1,807	420	1.52	12.91	5.86	13,363
(with white maize)		8,230	—					
Minimum requirements.		21,000	2,331	210	6.3	11.2	—	—
Recommended		42,000	3,500	525	12.6	15	—	21,000

Diet of one adult for one week, very poor family.

10:Beals & Hatcher E-4,5 (1941-1942) 1943
NU34 Tarasco NU34
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still short of what is recommended by some authorities. With vitamin B_2, however, the deficiency again becomes marked. Protein intake is barely above the minimum, while less than two thirds the minimum number of calories is secured.

The figures given in these tables, and the difficulties which arose in securing them, point out serious problems in the development of an accurate measure of diets. As the junior author has remarked, "I don't believe any of the values I found, and I don't believe the results I got. The whole business consists of a series of estimates. The actual figures in the tables mean little, but the fact that, in spite of whatever contortions I put the data through, I came out with something similar, gives plausibility to the general results." The reasons for this situation lie only partly in the inadequacies of the data; even greater uncertainty results from the difficulty of applying the published results of vitamin assays directly to specific foods prepared in specific ways. Thus in the case of the crucial vitamin C values, which in poor diets is almost wholly derived from chile, the variation in the C content of different varieties, and the variable losses in cooking and storage of each of these varieties under specific conditions makes an accurate estimation very difficult. In the case of maize, there is apparently no information as to the effect of storage and preparation on the vitamin A and vitamin B_1 content. As Mills has pointed out, there is also a difference in the vitamin content of foods produced in different regions.[3] We have no way of knowing whether corn produced in Michoacán, for example, has the same vitamin content as the corns analyzed in the United States. Finally, one may raise the all important and hitherto completely unanswered question as to whether nutritional requirements are the same for all peoples.

Nevertheless, some suggestions emerge from the studies. First of all, it is clear that the basic field data must be collected with great accuracy and with refernce to specific foods. The work of Steggerda[4] in Yucatán, for example, could not be compared with the results in this paper simply because a large number of foods were lumped together, rendering any effort at vitamin analysis impossible. This also applies to general statements about the importance of individual foods to diets. Ralph Linton, for example, has recently suggested that the increased protein intake resulting from the domestication of the bean,

[3] Mills, C. A. "Climatic Effects on Growth and Development, with Particular Reference to the Effects of Tropical Residence" (American Anthropologist, 44: 1-13, 1942).

[4] Steggerda, Morris. "Maya Indians of Yucatán". Carnegie Institution of Washington, Publication 531.